

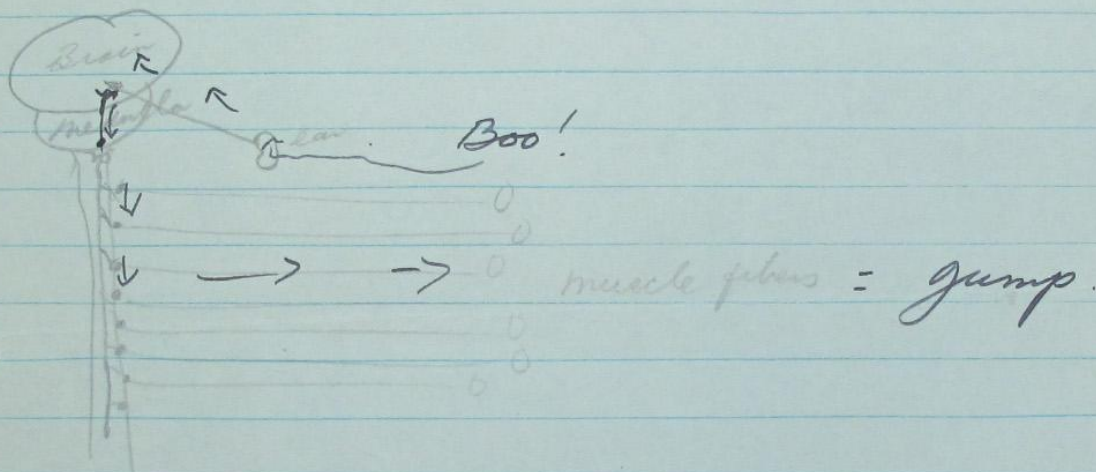
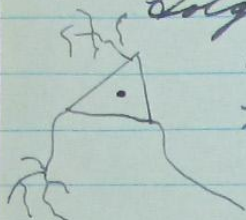
Nervous System.

Peduncles:

Pathways of fibers going between cerebrum & cerebellum (look like stalks) A little removed from spinal cords.

Solgi - particular type of nerve cells.

Damaged quite a bit by alcohol. In motor cortex - grey matter of brain.



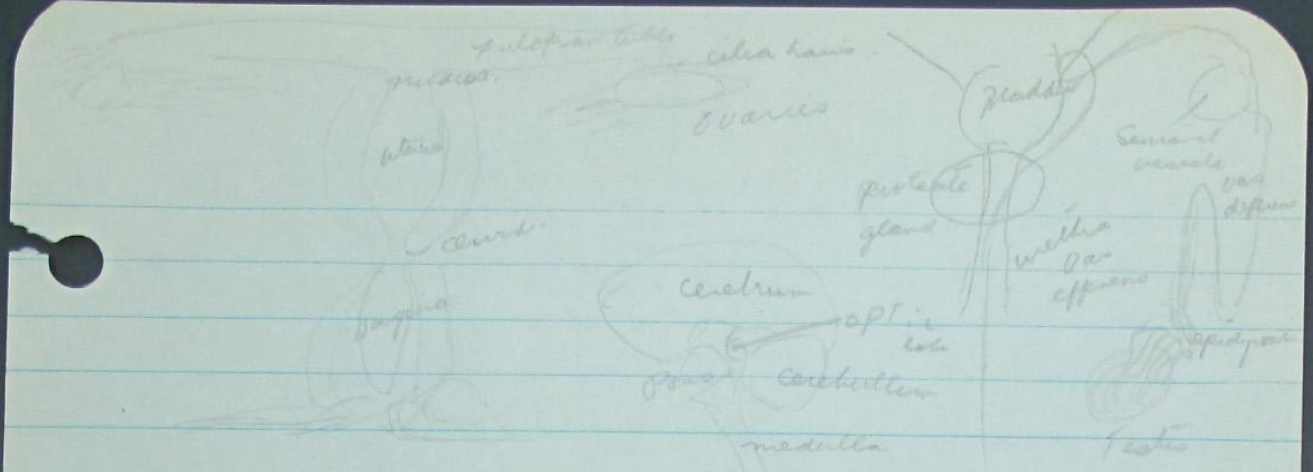
Person - nervous - poor control over emotions. Consumed with fear - Over stimulated with emotions. People who actually do have nervous disease has wrong stimulus coming across nerve fibers. Person highly heaps up is not nervous. but how actions effect it. Psychological. Freedom from worry & rest treatment for what is called Nervous Breakdown.

4. Matter all bodies - W. matter cell fibers - covered with myelin sheath. Nuclei of N. cells distinct function. If nerve

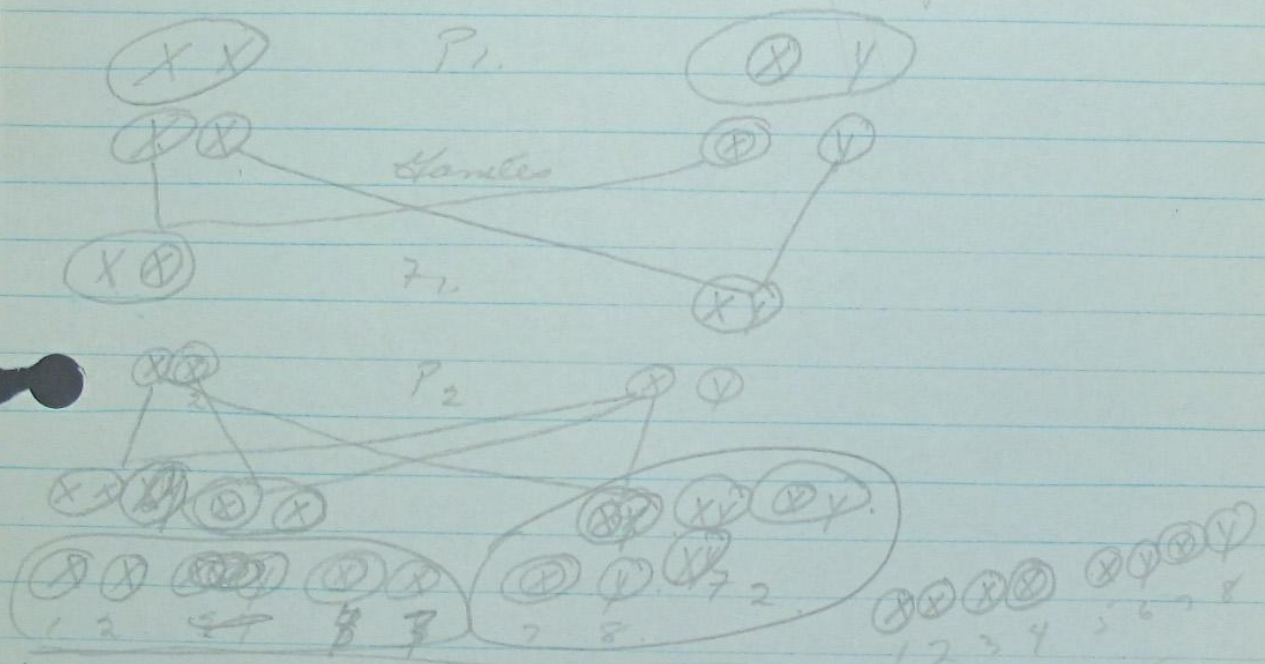
fiber die myelin sheath fibre instead of dying
multiply & make a new cell. They matter
Have no myelin sheath

Synapses all thro' brain & spinal cord.
Cell as long as distance from S. Cord or Brain
to place of destination.

Long fiber - axone. dendron
Short " - dendrite dendrite



1 male with haemophilia
1 homozygous normal female, normal coat



X ^H X ^H	X ^H X ^h	X ^h X ^h	X ^H Y	X ^h Y	X ^h X ^h
15	16	17	18	19	20
X ^H X ^H	X ^H X ^h	X ^h X ^h	X ^H Y	X ^h Y	X ^h X ^h
21	22	23	24	25	26
X ^H X ^H	X ^H X ^h	X ^h X ^h	X ^H Y	X ^h Y	X ^h X ^h
27	28	29	30	31	32
X ^H X ^H	X ^H X ^h	X ^h X ^h	X ^H Y	X ^h Y	X ^h X ^h
33	34	35	36	37	38
X ^H X ^H	X ^H X ^h	X ^h X ^h	X ^H Y	X ^h Y	X ^h X ^h
39	40	41	42	43	44

X ^H X ^H	X ^H X ^h	X ^h X ^h	X ^H Y	X ^h Y	X ^h X ^h
15	16	17	18	19	20
X ^H X ^H	X ^H X ^h	X ^h X ^h	X ^H Y	X ^h Y	X ^h X ^h
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X ^H X ^H	X ^H X ^h	X ^h X ^h	X ^H Y	X ^h Y	X ^h X ^h
27	28	29	30	31	32
X ^H X ^H	X ^H X ^h	X ^h X ^h	X ^H Y	X ^h Y	X ^h X ^h
33	34	35	36	37	38
X ^H X ^H	X ^H X ^h	X ^h X ^h	X ^H Y	X ^h Y	X ^h X ^h
39	40	41	42	43	44

Rhys Smith

Fatty tissue, flabby skin
Physical & mental mind

Name	Location	Hormone	Normal Function	Result of Malfunction
Thyroid ✓	Beneath muscles of neck behind larynx ✓	Thyroxine ✓	Ext. metabolic act of entire body, growth & development of body & mind. ✓	Total def. - Cretin - & limbs ✓ Hypo - Myxedema - later, skin - brittle - person, irritability, nervous, highly susceptible, heart, pulse, etc. increased, hungry, but not fat. ✓ Total def. - Fatig, resembles stigmata fits ✓ V.O. def. - Calcium not lowered, cells intact & muscular spasms.
Parathyroid ✓	2 on either side of thyroid ✓	Parathyrin ✓	1. Influence sugar metabolism Inhibitory influence of sugar excretion. 2. Regulates calcium metabolism	1. Growth & development ✓ 2. Effect on strong muscles & it import. in natural contraction of blood vessels, Regulates disposal of sugar of body. ✓
Pituitary	1. Ant. - base of brain at front ✓ 2. Post - behind optic chiasm ✓	1. not named. ✓ 2. Prolactin ✓ 3. Prolactin ✓ 4. Prolactin ✓	1. Growth & development ✓ 2. Effect on strong muscles & it import. in natural contraction of blood vessels, Regulates disposal of sugar of body. ✓	1. Acromegaly - after - Hypo - some degeneration in hands, ft. jaw, etc. ✓ Hypo - gigantism Hypo - dwarf - Prolonging & looking at, intell. ✓ 2. Excessive oxidation of metabolism ✓ Injection of pituitary - X
Pancreas	1. Pancreatic juice ✓ 2. Insulin ✓	1. Pancreatic juice ✓ 2. Insulin ✓	1. Acids digestion ✓ 2. Imp. factor in Carbohydr. metab. ✓	Insufficient insulin liberated into blood glucose not oxidized but remains in & excreted in urine. diabetes ✓
Intestinal mucous cells	Pyloric end of stomach ✓	Secretin ✓	Stimulates pancreas to secrete pancreatic juice. Stimulates liver & intest. ✓	

Feb 6 * Nervous System & its functions *

" 11 Same (cont)

" 13 * Hygiene of Nervous System

" 18 Test.

Feb 20 Eye. *

25 * Hygiene of Eye.

" 27 Ear *

March 4 * Hygiene of Ear.

" 6 Senses of Smell & Taste *

" 11 Test.

" 13 * Internal Secretions.

" 18 "

" 20 * "

" 25 Test.

April 27 * Sex and Reproduction

April 30 * "

" 17 * Genetics & Human Inheritance

" 22 * "

" 24 Test.

May 6 Immunity & Chp. 13.

* Magazine article.

* - Consult other texts for material.

Human Heredity - Read.

Binoocular Vision:

Image is formed upon each retina therefore our vision is called binocular. Only one image is seen so long as both eyes are maintained in their correct positions by the eye muscles. Normally, each of the two images formed by any object falls upon a half of either retina; but, as a result of the crossing and re-arrangement of the optic nerve fibers behind the eyes, the two images are recorded on only one side of the brain. The fibers from the left half of each retina go to the left side of the brain, and those from the right half of each retina to the right side of the brain. The result is that only one impression of the object is registered in consciousness. When the eyes are out of line, the two images fall upon non-corresponding halves of the retinas, & the impulses caused thereby pass to both sides of the brain. As mentioned, double vision results.

Hypermetropia:

In this condition the diameter of the eye from front to back is too short. The crystalline lens is unable to bend the rays acutely enough to bring them to focus upon the retina. Convex glasses are employed to aid the crystalline lens.

Myopia:

The crystalline lens bends the rays of light to the same degree as in a normal eye, but, since the diameter of the eyeball

from front to back is too great, the retina must be a little beyond the point where the rays come to a focus. The lens is too strong for the length of the eyeball. After the rays come to a focus, in front of the retina, they cross again and, upon reaching the retina, form a blurred image. There is only one way in which the defect of short-sightedness may be overcome — by making the rays of light more radiating before they enter the eye, so that the crystalline lens will be just strong enough to bring them to a focus upon the retina.

Night blindness:

If rods are defective night blindness occurs. The person in daylight is normal but is unable to see in dim lights. Affliction results also from lack of Vitamin A.

Astigmatism:-

Rays of light are brought to sharp points upon the retina but form instead short lines.

15, Colour Vision:- Retina possesses 3 kinds of sensitive cells — one is stimulated by red — one by green — & the 3rd by violet. When white light falls upon the retina all these elements are stimulated & a sensation of white is experienced. Only a part of retina perceive colour sensation — image falling upon other part appear only in black & white.

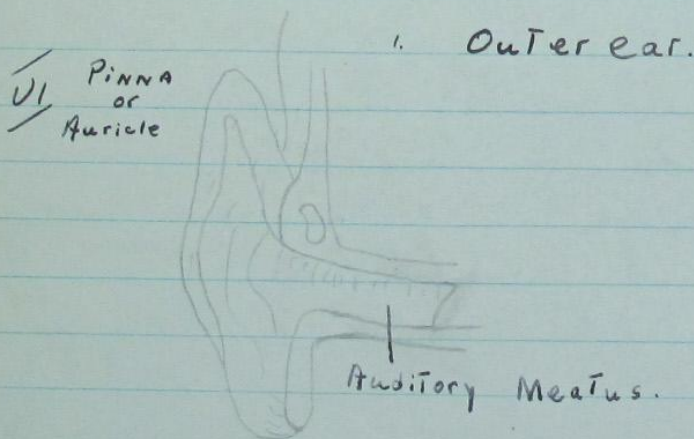
V. Health of the eyes.

1. Have a good position while reading.
2. Use good light.
3. Do not read on moving vehicles.
4. Do not ~~read~~ rub eyes.
5. Do not open sty's without dr. permission.
6. Wear glasses if supposed to.
7. Rays of sun on water bad for eyes.
8. Wear good sun glasses.
9. Bathe tired eyes in cold water.
10. Do not wear other people's glasses.

VIII. Health of the ears.

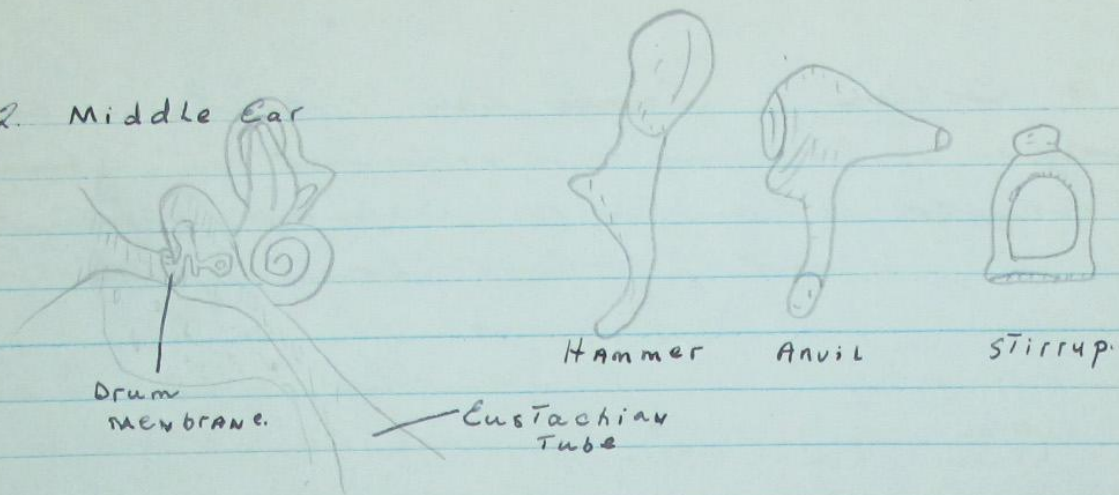
1. Keep external ear clean.
2. Do not ^{touch} external ear with anything.
3. Do not listen to high pitched sounds too long.
4. Do not swim in polluted water.
5. Do not blow nose incorrectly.
6. Float any foreign matter in ear, out with oil or warm clean water.
7. Never let anyone but a Dr. put anything into the ear.
8. Beware of diving into water when pressure is too high or too low.
9. Take particular care of the ear during and after an infectious disease.
10. Keep pressure equal on both sides of the ear drum.

111 The true organ of hearing is the Organ of Corti in middle ear. The Basilar membrane hits the tiny hairlike fibers of Corti — & sets them into vibration. These hair cells will be moved swiftly up & down & will tap in rapid succession upon the floating roof membrane — rate of tap varying with the frequency of vibrations. Each tap will cause a mechanical stimulus — to be given fine nerve twig ending each hair cell. Nervous impulses will then arise & will travel along auditory nerve — it will reach brain (temporal lobe) & sound is produced.



Outer ear, ^{auricle & meatus} is open simply for purpose of conducting the sound waves & transmitting them to the next compartment (the middle ear). The auditory meatus is closed at its inner end by the drum membrane — which acts as a flexible partition between the outer & middle ears.

2. Middle Ear



Middle ear is small chamber hollowed out of bone of skull — all walls bony except outer one. (drum membrane) cords which run along side of ^{condemns} drum — provided with little tags of leather by which they can be tightened & parchment cover of drum stretched — muscle which does this is tensor tympani — chain of 3 little bones — slung across middle ear from drum membrane & inner wall of chamber.

Outermost — Shaped like hammer — malleus. Attached firmly to its hammer & drum membrane.

Middle — like tooth or anvil — incus.

Innermost — like a stirrup — stapes.

Foot plate of stirrup fits snugly into small oval window placed in inner wall of middle ear. Window opens into inner ear. Situated a little lower on inner wall is 2nd window — round window closed by thin membrane.

A small tube — Eustachian — runs from middle chamber of ear & back of nose. By means of this air can pass in or out of middle ear & it ^{keeps} pressure equal on both sides.